How to Use Your Cobra GR 25 LTD ST

Features of This Product

- *40 German FM Channels*
  40 European (CEPT) Channels
  12 German AM Channels
- *SoundTracker™ System*
- *Heavy-Duty Dynamic Microphone with Channel Changer*
- *Full 4 Watts RF Power Output*
- *Instant Channel 19 and 9*
- *Front Panel 6-Pin Microphone Connector*
- *Switchable Noise Blanker-Automatic Noise Limiter*
- *RF Gain*
- *PA Function*
- *2.75-metre (9-foot) Microphone Cord*

Installation

Location

Location

Plan location of transceiver and microphone bracket before starting the installation.

Select a location that is convenient for operation, yet does not interfere with the driver or passenger.

The transceiver is usually mounted to the underside of the dash with the microphone bracket beside it.

Mounting and Connection

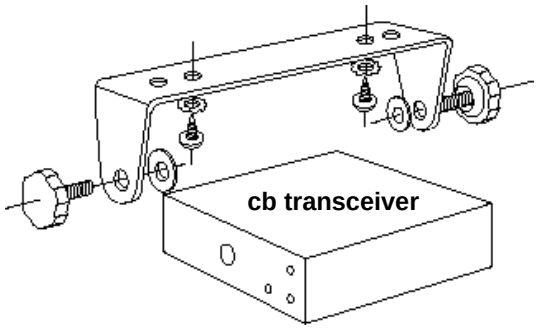
Note

The transceiver is held in the universal mounting bracket by two thumbscrews which allow for adjustment at a convenient angle.

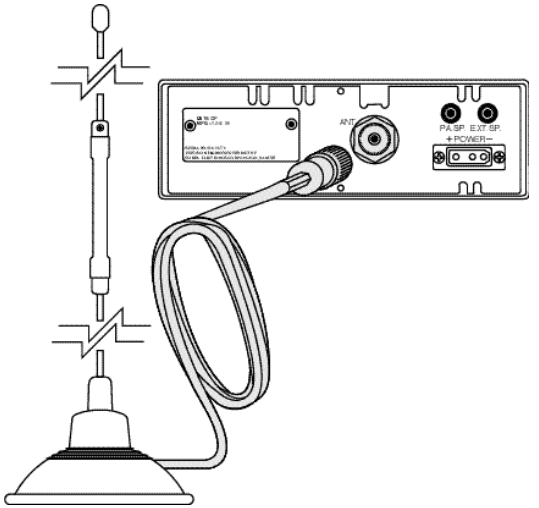
The bracket includes two self-tapping screws and star washers. The mounting must be mechanically strong and conveniently located.

Mounting and Connection

❶ Hold the radio with the mounting bracket in the exact desired location. If there is no interference, remove the bracket and use it as a template to mark the location for the mounting screws.



❷ Drill the holes and secure the bracket.



❸ Connect the antenna cable plug to the receptacle marked "ANT" on the back of the unit.

continued

Installation

Note

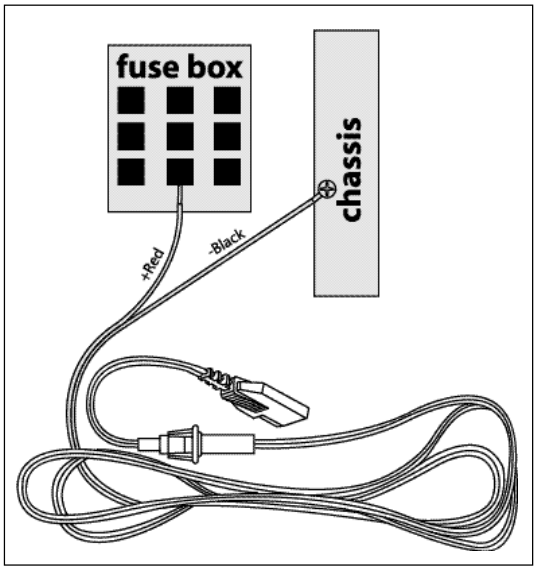
Before installing the CB radio, visually check the vehicle's battery connection to determine which terminal, positive or negative, is earthed to the engine block (or chassis). A negatively earthed vehicle has its negative lead earthed to the chassis.

Note

Connecting to a fuse circuit controlled by the ignition switch prevents the unit from being left on accidentally, and also permits operating the unit without running the engine.

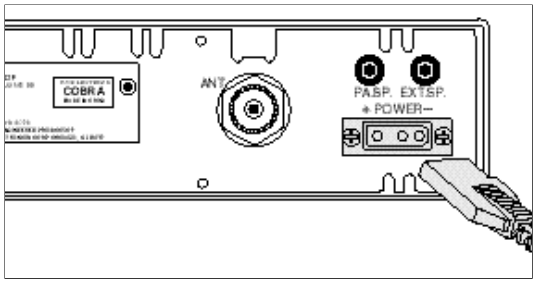
Note

In positive earth vehicles the red wire goes to the chassis and the black wire is connected to the ignition switch.



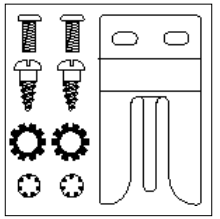
❹ In a negative earthed vehicle, connect the red lead of the DC power cord to an accessory 12 volt fuse.

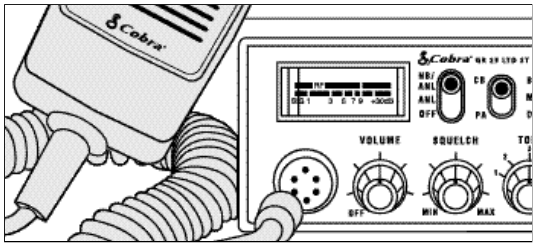
❺ Connect the black lead to the negative side of the vehicle. This is usually the chassis. Any convenient location with a good electrical contact (remove paint) may be used.



❻ Plug power cable into back of unit marked "Power". Be sure to observe polarity markings.

❼ Mount the microphone bracket on the right side of the unit (nearer the driver) using two screws supplied. Bracket should be placed under the dash so that microphone is readily accessible.





❽ Attach the 6-pin microphone cable to receptacle on front of unit and Install unit in bracket securely.

Antennas

CB Antenna

Note

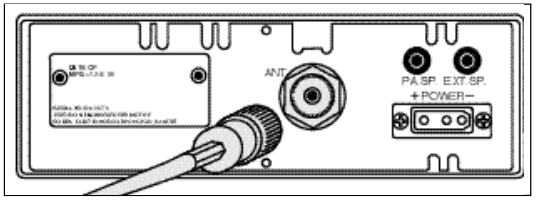
For optimum performance in passenger cars the ideal antenna location is on the centre of the roof. Second choice is on the centre of the boot.

Note

Antenna bracket must be earthed to the chassis of the vehicle.

CB Antenna

The antenna is critical in affecting transmission distance. Only a properly matched antenna system will allow maximum power output. Cobra loaded type antenna models are highly recommended for most installations.



❶ A standard antenna connector is provided on the transceiver for easy connection.

Marine Installation

The transceiver will not operate at maximum efficiency in a boat without an earthing plate, (unless it has a steel hull). Before attempting installation , consult your dealer for information regarding an adequate earthing system and prevention of electrolysis between fittings in the hull and water.

Ignition Noise Interference

Use of a mobile receiver at low signal levels is normally limited by the presence of electrical noise. The primary source of noise in cars is from the alternator and the ignition system. Typically, when signal level is adequate, the background noise does not present a serious problem. Also, when extremely low-level signals are being received, the transceiver may be operated with the vehicle's engine turned off. The unit requires very little current and therefore will not significantly discharge the vehicle's battery.

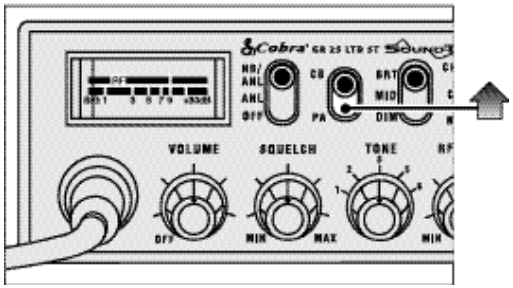
Even though the Cobra GR 25 LTD ST has an automatic noise limiter, in some installations ignition interference may be high enough to make good communications impossible. Many possibilities exist and variations between vehicles require different solutions. Consult your COBRA dealer or a 2-way radio technician for help in locating the source of a severe noise.

Operation

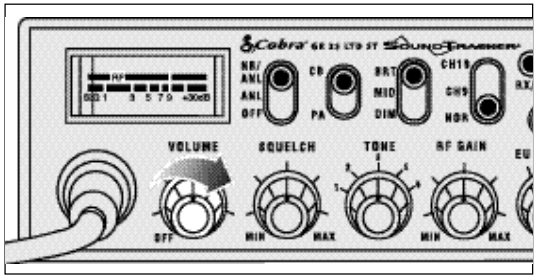
Turning On

Turning On

Make sure the power cord, antenna and microphone are connected to their proper connectors before starting.

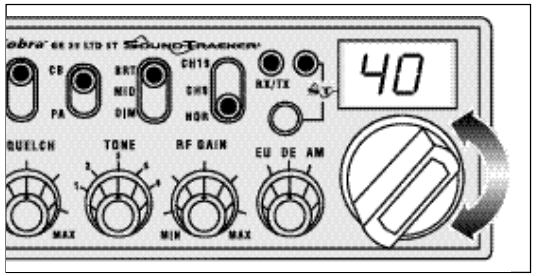


❶ The CB/PA button should be in the CB position.



❷ Rotate the On/Off Volume knob *clockwise* to a normal listening level.

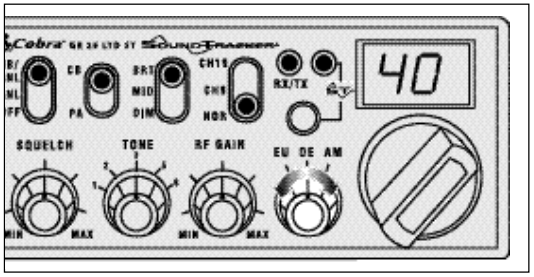
Setting Channel Selector



❶ *Select* one of forty channels and adjust volume. The selected channel is indicated by the LED readout directly above the channel selector knob

Setting Channel Selector

Setting Band Mode Selector



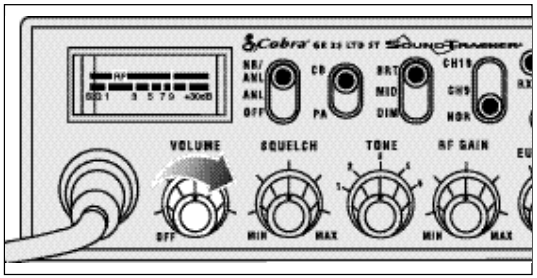
❶ To operate in EU band, set control to **EU**, to operate in DE band, set to **DE,** and to operate in AM band, select **AM**.

Setting Band Mode Selector

Operation

To Receive

To Receive



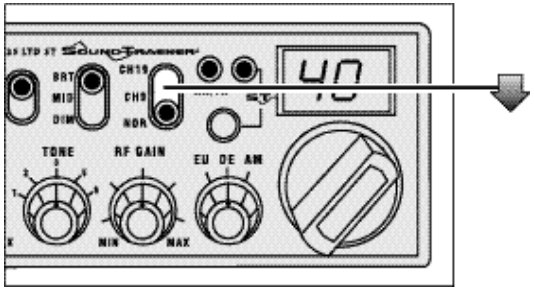
❶ Rotate the On/Off Volume knob *clockwise*. The green RX/TX LED will be illuminated.

Selecting A Channel

Note

Switch to 9 or 19 (Information) for instant access to these channels.

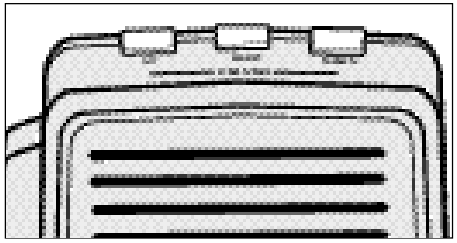
Selecting A Channel



❶ *Switch* to NOR to select desired channel.

Selecting a Channel from Microphone

Selecting A Channel from Microphone

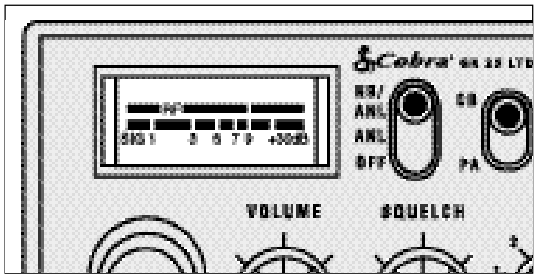


❶ Channels can also be selected by pressing the **UP** and **DOWN** buttons on top of the microphone. To lock channel,press and release the **LOCK** button.

S-Meter

S-Meter

Swings proportionately to strength of incoming signal when receiving.

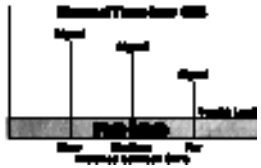


Operation

SOUNDTRACKER® SYSTEM

Note

SoundTracker™ gives you clearer, cleaner reception to improve CB communications while on the air.



The SoundTracker™ System

While previous systems only "blanket out" or limit noise in higher sound frequencies, the revolutionary new SoundTracker™ System actually reduces noise while leaving the signal intact in the reception mode. In the transmission mode, it actually strengthens the signal,providing you with a significant reduction in noise on reception and transmission.

Sound clarity is measured by the ratio of the signal level to the noise level. The higher the signal-to-noise ratio, the better the sound.

How SoundTracker™ Works

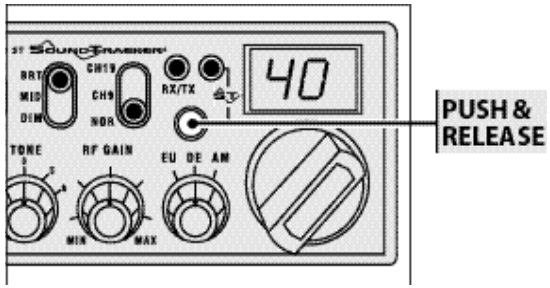
On Reception - "Cuts noise coming in"

With a normal CB, distant signals fall below the squelch level and are unintelligible. With a SoundTracker™ CB, the noise level is cut by up to 90%,which increases the signal-to-noise ratio and dramatically improves signal clarity. This also allows you to reduce the squelch level significantly ,which greatly expands your listening range.

On Transmission - "Strengthens signals going out"

A SoundTracker™ CB strengthens the transmit signal by more effectively using the available RF power output of the CB. The result is improved transmission signal clarity and an expanded transmission range.

Activating SoundTracker™



❶ *Push and release* the ST button. Red LED is illuminated when SoundTracker™ is turned on.

Activating SoundTracker™

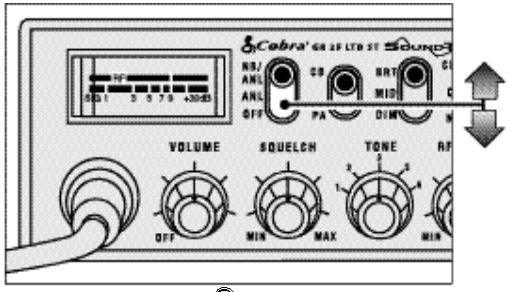
Operation

NB/ANL, ANL, OFF (Noise Blanker, Automatic Noise Limiter Switch

Note

The RF noise blanker is very effective in reducing repetitive noises such as ignition interference.

NB/ANL,ANL, Off Switch

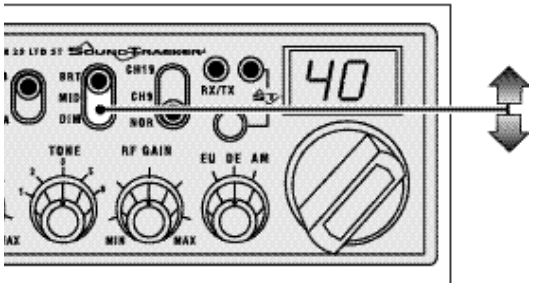


❶ When *switched* to NB/ANL position the RF Noise Blanker and Automatic Noise Limiter is activated, providing increased noise filtration.

❷ When switched to the ANL the Automatic Noise Limiter is activated. This helps reduce noise created by the vehicle's electronics.

When switched to OFF position Noise Blanking and Automatic Noise Limiting Filtration will be turned off.

Bright/Mid/Dim Switch

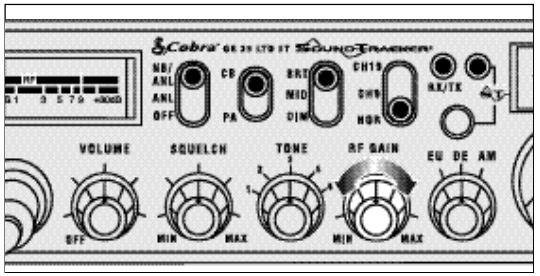


Bright/Mid/Dim Switch

❶ *Switch* to BRT, MID or DIM to control brightness of the channel indicator and multi-function meter for day or nighttime driving.

RF Gain Control

The RF Gain is used to optimize reception in strong or weak signal areas.



RF Gain Control

Note

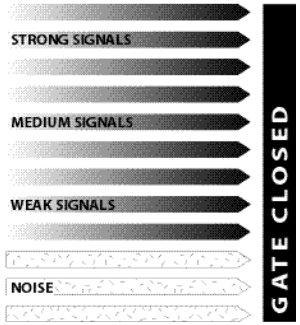
The RF Gain is used to optimize reception in weak signal areas.

❶ *Rotate* the RF Gain knob *anticlockwise* to reduce gain in strong signal areas. In weak signal areas turn *clockwise* to increase gain.

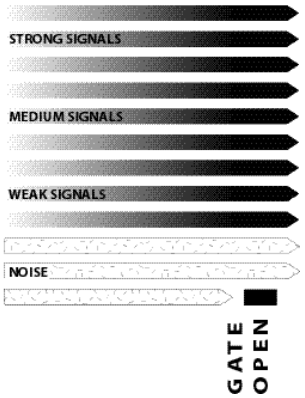
Operation

Setting Squelch

Gate closed

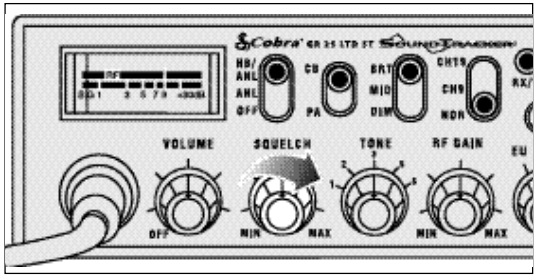


Gate open

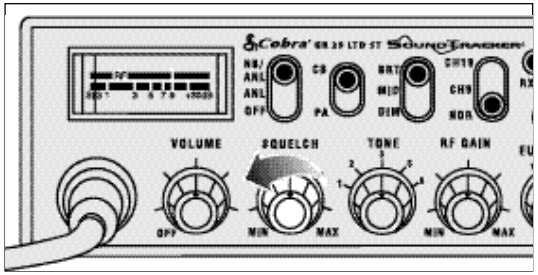


Setting Squelch

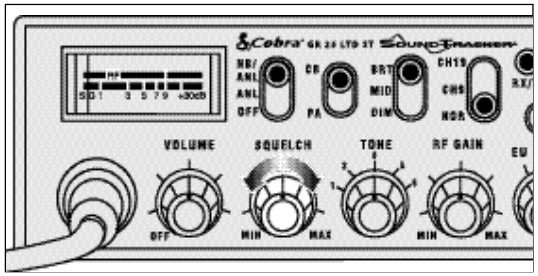
Squelch is the "control gate" for incoming signals.



❶ Full ◎ *clockwise* rotation closes the "gate" allowing only very strong signals to enter.

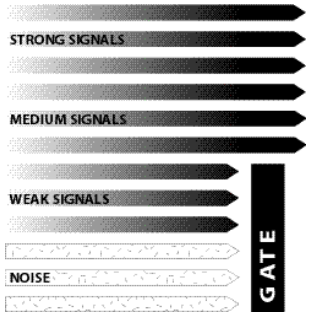


❷ Full ◎ *anticlockwise* rotation opens the "gate" allowing all signals in.



❸ To achieve the Desired Squelch Setting (DSS), turn the Squelch control ◎ *anticlockwise* until you hear noise. Now turn the control *clockwise* until the noise just stops. This is the DSS setting.

Gate set to Desired Squelch Setting (DSS)



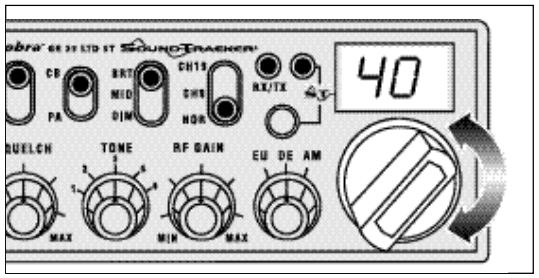
Operation

To Transmit

Caution!

Be sure the antenna is properly connected to the radio before transmitting. Prolonged transmitting without an antenna,or with a poorly matched antenna, can cause damage to the transmitter.

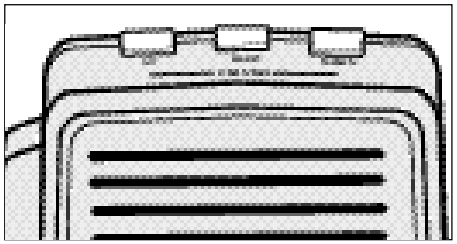
To Transmit



❶ *Select* desired channel.

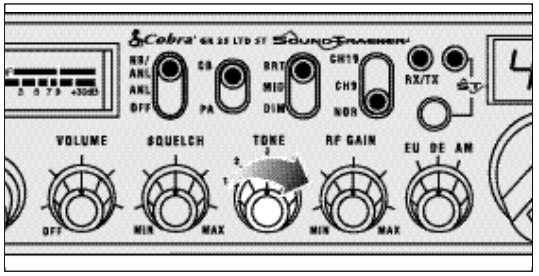
Selecting a Channel from Microphone

Selecting A Channel from Microphone



❶ Channels can also be selected by pressing the **UP** and **DOWN** buttons on top of the microphone. To lock channel,press and release the **LOCK** button.

Setting Tone Control



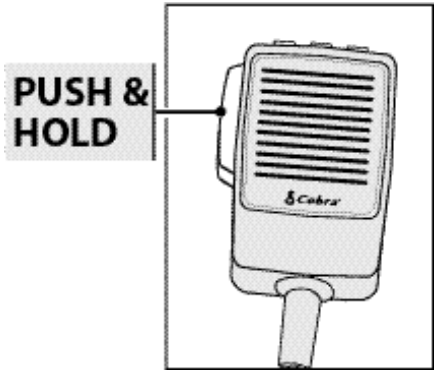
❶ Tone Control is used to set the desirable tone level of received audio signals.

Setting Tone Control

Operation

Transmit

Transmit

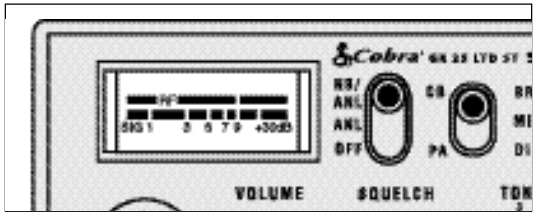


❶ *Push and hold* microphone button to transmit. Transmitter is now activated. When transmitting, hold the microphone two inches from your mouth and speak in a clear, normal voice. *Release* to receive.

RF Meter

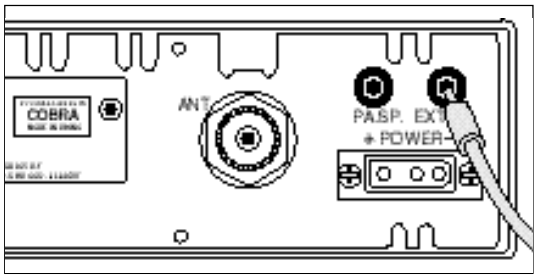
RF Meter

This meter swings proportionately to the RF output (outgoing signal) while transmitting.



External Speaker

The external Speaker jack is used for remote receiver monitoring.



❶ Connect an external speaker to the external speaker jack on the rear panel.

External Speaker

Note

The external speaker should have 8-ohm impedance and be rated to handle at least 4 watts. When the external speaker is plugged in, the internal speaker is automatically disconnected.

Note

Cobra external speakers are rated at 10 watts.

Operation

PA (Public Address)

Note

Speaker should have 8-ohm impedance and be rated to handle at least 4 watts.

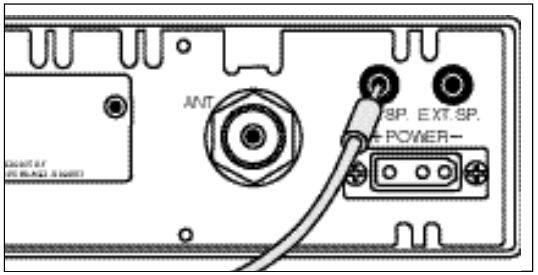
Note

The speaker should be directed away from the microphone to prevent acoustic feedback.

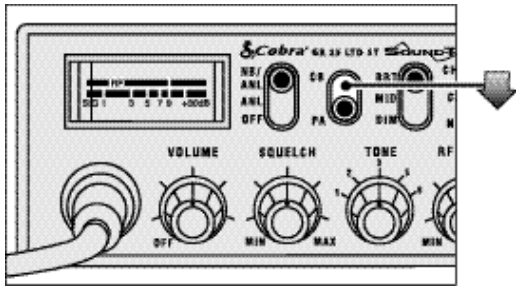
Note

Adjust volume control to normal listening level. Activity on the CB channel will be heard through the PA speaker.

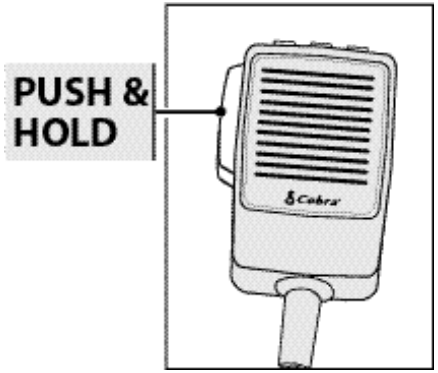
PA (Public Address)



❶ Connect an external PA speaker to the PA jack on the rear panel.



❷ *Set* CB/PA switch to PA position.

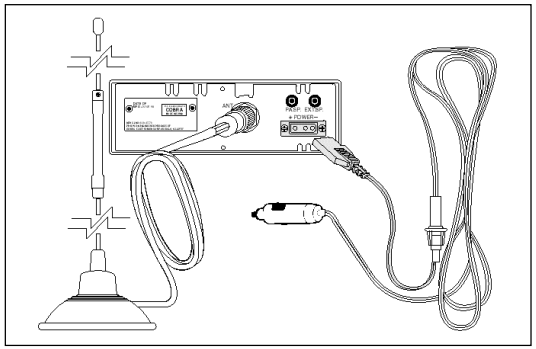


❸ *Push and hold* microphone button and speak in a normal voice. Your voice will sound on the PA speaker.

Temporary Mobile Set-Up

Temporary Mobile Operation

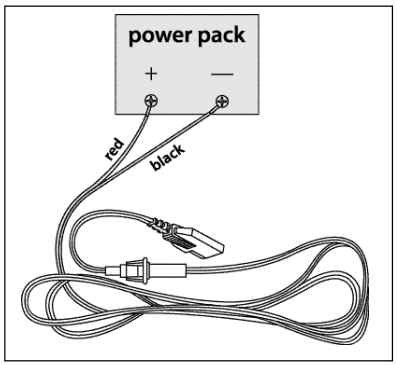
For temporary mobile operation you may want to purchase an optional cigarette lighter adapter from your COBRA dealer. This adapter and a magnetic mount antenna allow you to "install" your transceiver quickly for temporary use.



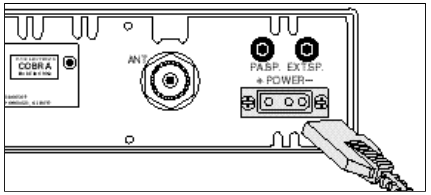
Base Station Operation (From 220/240V AC Domestic Current)

Base Station Operation (From 220/240V AC Domestic Current)

To operate your transceiver from home or office you will need a 13.8 volt DC Power Pack rated at a minimum of 2 amps, and a properly installed base station antenna.



❶ Connect the red (+) and black (-) leads of the transceiver to the corresponding terminals of the power pack.



❷ Plug power cable into back of unit marked "Power". Be sure to observe polarity markings.

❸ Connect properly installed and matched base station antenna.

Warning!
Do not attempt to operate this transceiver by connecting it directly to 220/240 V AC.

How Your CB Can Serve You

A Few Rules You Should Know

- Warn of traffic delays ahead
- Provide weather and road information
- Provide help in an emergency
- Provide direct contact (subject to conditions) with home or office
- Get local information to find destination
- Let you communicate with family and friends
- Suggest spots to eat and sleep
- Keep you alert while travelling

A Few Rules You Should Know

A. Conversations should not last more than 5 minutes with another station. A one minute break should be taken to let others use the channel.

B. You should not blast others off the air by use of illegally amplified transmitters or illegally high antennas.

C. You should not use the CB to promote illegal activities.

D. Bad language should not be used.

E. You should not transmit music with a CB.

F. You should not use your CB to sell merchandise or professional services.

Local Laws or Regulations

The use of this CB product involves the public airways and its use may be subject to local laws or regulations. Before using the product you should check to see that the contemplated use does not violate any applicable local law or regulation.

Local Laws or Regulations

How Your CB Can Serve You

CB 10-Codes

CB 10-Codes

Citizen Bands have adopted the "*10-CODES*" for standard questions and answers. These codes provide quick and easy communication,especially in noisy areas. Following are some of the more common codes and meanings:

Code	Meaning
10-1	Receiving poorly
10-2	Receiving well
10-3	Stop transmitting
10-4	OK,message received
10-5	Relay message
10-6	Busy, stand by
10-7	Out of service, leaving air
10-8	In service, subject to call
10-9	Repeat message
10-10	Transmission completed, standing by
10-11	Talking too rapidly
10-12	Visitors present
10-13	Advise weather/road conditions
10-16	Make pick-up at
10-17	Urgent business
10-18	Anything for us?
10-19	Return to base
10-20	My location is
10-21	Call by phone
10-22	Report in person to
10-23	Stand by
10-24	Completed last assignment
10-25	Can you contact
10-26	Disregard last information
10-27	Moving to channel
10-28	Identify your station
10-29	Time is up for contact
10-30	Does not conform
10-33	Emergency traffic
10-34	Trouble at this station
10-35	Confidential information
10-36	Correct time is
10-37	Breakdown truck needed at
10-38	Ambulance needed
10-39	Message delivered
10-41	Turn to channel
10-42	Traffic accident at
10-43	Traffic delay at
10-44	Have a message for
10-45	All units within range please report
10-50	Break channel
10-60	What is next message number?
10-62	Unable to copy. Use phone
10-63	Net directed to
10-64	Net clear
10-65	Awaiting your next message/assignment
10-67	All units comply
10-70	Fire at
10-71	Proceed, transmission in sequence
10-77	Negative contact
10-81	Reserve hotel room for
10-82	Reserve room for
10-85	My address is
10-91	Talk closer to mic
10-93	Check my frequency on this channel
10-94	Give me a long count
10-99	Mission completed, all units secure
10-200	Police needed at

Frequency Ranges

The COBRA GR 25 LTD ST transceiver represents one of the most advanced FM two-way radios. This unit features advanced Phase Lock Loop (PLL) circuitry providing complete coverage of all 40 CEPT FM, 40 German FM and 12 AM CB channels.

CEPT Frequencies (EU)				German Frequencies (DE)			
CB Channel	Channel Freq. In MHz	CB Channel	Channel Freq. In MHz	CB Channel	Channel Freq. In MHz	CB Channel	Channel Freq. In MHz
1	26.965	21	27.215	41	26.565	61	26.765
2	26.975	22	27.225	42	26.575	62	26.775
3	26.985	23	27.255	43	26.585	63	26.785
4	27.005	24	27.235	44	26.595	64	26.795
5	27.015	25	27.245	45	26.605	65	26.805
6	27.025	26	27.265	46	26.615	66	26.815
7	27.035	27	27.275	47	26.625	67	26.825
8	27.055	28	27.285	48	26.635	68	26.835
9	27.065	29	27.295	49	26.645	69	26.845
10	27.075	30	27.305	50	26.655	70	26.855
11	27.085	31	27.315	51	26.665	71	26.865
12	27.105	32	27.325	52	26.675	72	26.875
13	27.115	33	27.335	53	26.685	73	26.885
14	27.125	34	27.345	54	26.695	74	26.895
15	27.135	35	27.355	55	26.705	75	26.905
16	27.155	36	27.365	56	26.715	76	26.915
17	27.165	37	27.375	57	26.725	77	26.925
18	27.175	38	27.385	58	26.735	78	26.935
19	27.185	39	27.395	59	26.745	79	26.945
20	27.205	40	27.405	60	26.755	80	26.955

AM Frequencies	CB Channel	Channel Freq. In MHz	CB Channel	Channel Freq. In MHz	CB Channel	Channel Freq. In MHz
	4	27.005	8	27.055	12	27.105
	5	27.015	9	27.065	13	27.115
	6	27.025	10	27.075	14	27.125
	7	27.035	11	27.085	15	27.135

GR 25 LTD ST Specifications

GENERAL

CHANNELS	40 CH CEPT FM 40 CH GR FM 12 CH GR AM
FREQUENCY RANGE (CEPT FM)	26.965 TO 27.405 MHz
FREQUENCY RANGE (German)	26.565 TO 26.955 MHz
FREQUENCY RANGE (German AM)	27.005TO 27.135 MHz
FREQUENCY TOLERANCE	0.005 %
FREQUENCY CONTROL	PLL (PHASE LOCK LOOP) SYNTHESIZER
OPERATING TEMPERATURE RANGE	-20° C TO + 55° C
MICROPHONE	PLUG-IN DYNAMIC
INPUT VOLTAGE	13.2VDC nom.(positive or negative earth)
CURRENT DRAIN	TRANSMIT: AM FULL MOD.,1.5A (MAXIMUM) RECEIVE:SQUELCHED, 0.3A;FULL AUDIO OUTPUT, 1.2A (NOMINAL)
SIZE	219 mm x 162 mm x 56 mm (8-5/8"D X 6-3/8"W X 2-13/64"H)
WEIGHT	1.8 kg (4 LBS.)
ANTENNA CONNECTOR	UHF; SO-239
METER	ILLUMINATED;INDICATES RELATIVE POWER OUTPUT, RECEIVED SIGNAL STRENGTH

TRANSMITTER

POWER OUTPUT	4 WATTS FM, 1 WATT AM
MODULATION	FM,AM
FREQUENCY RESPONSE	300 TO 3000 Hz
OUTPUT IMPEDANCE	50 OHMS,UNBALANCED

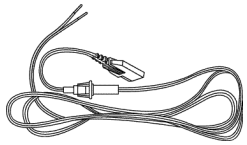
RECEIVER

SENSITIVITY	LESS THAN 6 µV FOR 20 dB SINAD
SELECTIVITY	6 dB @ 7 kHz, 60 dB @ 10 kHz
IMAGE REJECTION	80 dB, TYPICAL
ADJACENT-CHANNEL REJECTION	60 dB, TYPICAL
IF FREQUENCIES	DOUBLE CONVERSION:1ST: 10.695 MHz 2ND:455 kHz
AUTOMATIC GAIN CONTROL (AGC)	LESS THAN 10 dB CHANGE IN AUDIO OUTPUT FOR INPUTS FROM 10 TO 50,000 µV
RF GAIN RANGE	40 dB
NOISE BLANKER	RF TYPE
SQUELCH	ADJUSTABLE; THRESHOLD LESS THAN 1 µV
AUDIO OUTPUT POWER	4 WATTS
FREQUENCY RESPONSE	300 TO 3000 Hz
DISTORTION	LESS THAN 7% @3 WATTS @ 1000 Hz
BUILT-IN SPEAKER	8 OHMS,5W
EXTERNAL SPEAKER (NOT SUPPLIED)	8 OHMS; DISABLES INTERNAL SPEAKER WHEN CONNECTED

PA SYSTEM

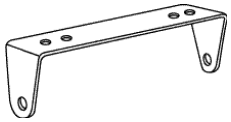
POWER OUTPUT	4 WATTS INTO EXTERNAL SPEAKER
EXTERNAL SPEAKER FOR PA (NOT SUPPLIED)	8 OHMS, 4 WATTS MINIMUM,

(SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE)



Replacement DC Power Cord

For in-vehicle use

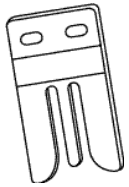


Replacement Mounting Bracket

For in-vehicle use

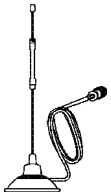
Replacement Thumb Screws

For in-vehicle use



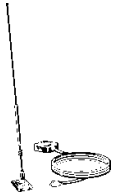
Replacement Microphone Bracket

For in-vehicle use



71 cm (28") Full Range Centre Load, Magnetic Mount Antenna

For in-vehicle use AT 35

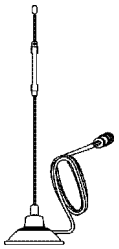


63.5 cm (25") Glass Mount Antenna

For in-vehicle use
AT 55

99 cm (39") Full Range Base Load, Magnetic Mount Antenna

For in-vehicle use
AT 70



112 cm (44") Full Range, Centre Load, Dual Band CB/WX Antenna

Allows greater transmission range while in a moving vehicle.
ATW-400

Dynamic External Speaker

For in-vehicle use
CS 100

Noise Cancelling External Speaker

For in-vehicle use
CS 300

Dynamic Noise Cancelling With Talk Back External Speaker

For in-vehicle use
CS 500

You Can Find These High-quality Accessories At Your Local Cobra CB Dealer

Notes

Notes

Cobra®

Cobra® GR25 LTD ST

Operating Instructions for your Cobra GR 25 LTD ST CB Radio

Bedienungsanleitung für Ihr Modell Cobra GR 25 LTD ST CB-Funkgerät

Instructivo de uso de la radio de banda ciudadana (CB) Cobra GR 25 LTD ST

Instructions d'utilisation du poste de radio CB GR 25 LTD ST de Cobra

Istruzioni per l'uso del modello Cobra GR 25 LTD ST Radio CB

Cobra Electronics Corporation
6500 West Cortland Street
Chicago, IL 60707 USA
www.cobraelec.com

"Ingenious Products for Easier Communication."

Our Thanks to You

Thank you for purchasing the Cobra GR 25 LTD ST CB Radio. Properly used, this Cobra product will give you many years of reliable service.

SoundTracker™

"Cuts noise coming in...strengthens signals going out."

This patent-pending technology dramatically improves transmission and reception of CB signals.

The revolutionary SoundTracker™ System reconfigures the transmission signal,allowing it to be transferred more efficiently through cluttered airwaves.

At the same time, it significantly reduces the amount of static on all incoming CB signals.

The end result is a cleaner, clearer reception of signals and a more powerful transmission,which dramatically improve CB communications.

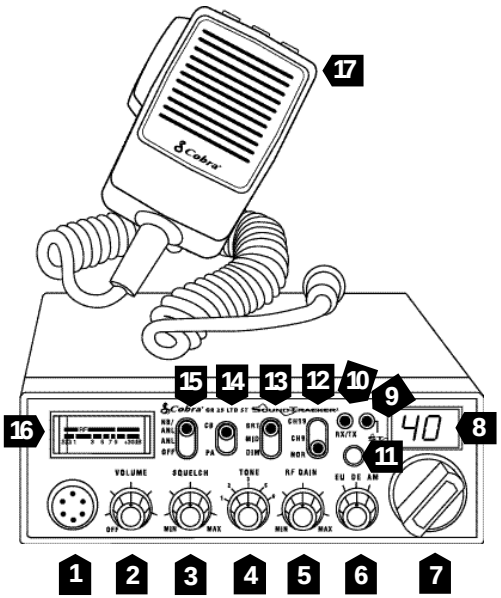
Cobra on the World Wide Web: Frequently Asked Questions (FAQ) can be found on-line at: www.cobraelec.com

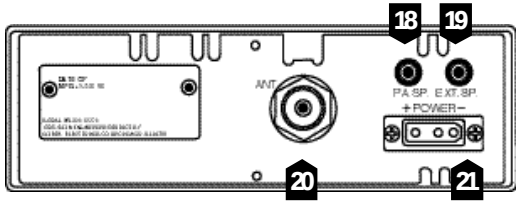
Controls and Indicators

1. *6-Pin Microphone Connector*
2. *Power On/Off/Volume*
3. *Squelch*
4. *Tone Control*
5. *RF Gain*
6. *Band Selector*
7. *Channel Selector*
8. *LED Channel Display*
9. *Sound Tracker™ LED*
10. *RX (Receive)/ TX (Transmit) LED Indicator*
11. *Sound Tracker™ On/Off*
12. *Channel 19/Channel 9/ Normal Switch*
13. *Dimmer Switch*
14. *CB/PA Switch*
15. *NB/ANL ANL/Off Switch*
16. *Signal Strength Meter*
17. *Microphone*

Rear Panel

18. *Public Address Speaker Jack*
19. *External Speaker Jack*
20. *Antenna Connector*
21. *Power Jack*





Our Thanks to You

Thank you for purchasing the Cobra GR 25 LTD ST CB Radio. Properly used, this Cobra product will give you many years of reliable service.

SoundTracker™

"Cuts noise coming in...strengthens signals going out."

This patent-pending technology dramatically improves transmission and reception of CB signals.

The revolutionary SoundTracker™ System reconfigures the transmission signal,allowing it to be transferred more efficiently through cluttered airwaves.

At the same time, it significantly reduces the amount of static on all incoming CB signals.

The end result is a cleaner, clearer reception of signals and a more powerful transmission,which dramatically improve CB communications.

Cobra on the World Wide Web: Frequently Asked Questions (FAQ) can be found on-line at: www.cobraelec.com